

REMARKS

Claims 1, 3-12 are currently pending in the application. Claim 1 is herein amended. No new matter has been presented.

Rejections under 35 USC §112, Second Paragraph

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner alleged as follows:

Claim 1 recites the limitation "the heat conferred during compression molding" in line 6. There is insufficient antecedent basis for this limitation in the claim: there is no mention of heating during compression molding.

Accordingly, "the" has been deleted from the recitation "the heat conferred during compression molding."

Rejections under 35 USC §103(a)

Claims 1, 3-4, 6-8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Valyi (U.S. Patent 5,762,854), in view of Saito et al. (U.S. Patent Application Publication 2002/0088767).

The Examiner alleged as follows:

Regarding Claims 1, 3-4, 7, and 11, Valyi shows that it is known to carry out a method of manufacturing a synthetic resin container (Column 1, lines 10-12) comprising . . . performing an even-heating treatment of the preform discharged from the compression molding machine while the preform maintains the heat conferred during compression molding, thereby obtaining a

homogenized temperature heated preform (Column 5, lines 53-67; Column 6, lines 13-18);

However, Valyi describes as follows:

Precursor 10, due to its process of formation, incompletely fills the compression mold, as shown in step 140. That is, precursor 10 does not fill areas such as the threads of the neck, and other non-threaded areas. Nor is the desired wall thickness distribution of preform mold 12 achieved. Accordingly, in step 140, in order to form these areas, the precursor has a quantity of material 44, shown in FIG. 2A as the innermost layer 44 that is not needed for forming preform 18 at the main body cavity portion 46 of mold 12.

(Valyi, column 5, line 62 to column 6, line 3).

Continuing in step 140, after molding, **the formed precursor is cooled in the compression mold** and now preform 18 left in mold 12 until it has cooled enough for removal. If further finishing operations are required to complete the molding of a product from the preform, such as when the product is a hollow article blown from a preform 18, compression mold 12 may be kept at the temperature at which the finishing operations such as blowing or stretch blowing may be performed. In such a case, **heating of preforms during finishing operations such as blow molding may be eliminated**. In other cases, where the product is a closure or something else not requiring additional operations, the molding operation is considered complete.

(Valyi, column 6, lines 11-22).

Thus, according to Valyi, after molding, the formed precursor is cooled in the compression mold and preform 18 is left in mold 12 until it has cooled enough for removal. Otherwise, compression mold 12 is kept at the temperature at which the finishing operations such as blowing or stretch blowing may be performed, and heating of preforms during finishing operations such as blow molding may be eliminated.

Therefore, Valyi does not teach or suggest, among other things, “performing an even-heating treatment of the preform **discharged from the compression molding machine** while the preform maintains heat conferred during compression molding, thereby obtaining an evenly-heated preform with a homogenized temperature in a thickness direction,” as recited in claim 1.

Saito was cited for remedying Valyi's lack of disclosure of forming a preform by compression molding on a drop which is an extruded molten lump. However, such disclosure of Saito does not remedy the deficiencies of Valyi discussed above.

For at least these reasons, claim 1 patentably distinguishes over Valyi and Saito. Claims 3-4, 6-8, and 10-12, depending from claim 1, also patentably distinguish over Valyi and Saito for at least the same reasons.

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being obvious over Valyi and Saito, further in view of Beck et al. (U.S. Patent No. 4,407,651).

Beck et al describes at a cited portion as follows:

In accordance with this invention, it is proposed to utilize the advantages of both types of heating systems by providing the oven of a blow molding machine with a number of heating units with the heating units being selectively of the different types. Depending upon the arrangement of the heating units and the power levels used, selected heat profiles can be achieved. Further, a more uniform temperature profile can be obtained without the requirement for equilibration time. Further, the use of different types of heating means in sequence permits the use of a closed loop control which can be set up automatically to adjust the heating cycles to provide the desired preform temperature or heat profile at the time it leaves the oven to enter the blow molder.

(Beck et al. column 1, lines 50-63).

In accordance with this invention, it is proposed to utilize the combination of what may be considered internal and external heating. For example, as shown in FIG. 7A, the preform 20 may be first heated utilizing either rf or microwave heating means to obtain the temperature profile 28 as shown in FIG. 4A, or even a modification thereof as shown in FIG. 5A. Thereafter, the preform 20 will be subjected to further heating such as by way of a quartz heater so as to impress upon the already partially heated preform a temperature profile corresponding generally to the temperature profile 40. Thus, the wall of the preform 20 is first more highly heated at the interior surface thereof and then is heated more highly at the exterior surface thereof. With proper control of the temperature profiles, a desired temperature profile 46, as shown in FIG.

7C, may be obtained with a minimum of time lapse and a minimum oven length.

(Beck et al. column 3, line 65 to column 4, line 14). Here, Beck et al. simply discusses heat profile and heating of a preform in general. However, such disclosure of Beck et al. does not remedy the deficiencies of Valyi and Saito discussed above.

For at least these reasons, claim 1 patentably distinguishes over Valyi and Saito. Claims 3-4, 6-8, and 10-12, depending from claim 1, also patentably distinguish over Valyi and Saito for at least the same reasons.

Double Patenting Rejections

Claims 4, 7, and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being obvious over claims 1 and 5-7 of U.S. Patent No. 6,716,386.

Responding to Applicants' previous response, the Examiner alleged in the Office Action dated 04/15/2010 as follows:

With respect to the Double Patenting rejections, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In the response of October 13, 2010, Applicants traversed the rejection specifically pointing out how the language of the claims patentably distinguishes them from the references. Nonetheless, the current Office Action simply repeated the original rejection without responding to Applicants' traversal.

Saito et al., which is a 102(b) prior art reference, is the publication of the application from which the '368 patent issued. Therefore, the disclosure of Saito et al. is the same as U.S. Patent No.

6,716,386. The present claims do distinguish over Saito et al., and because the present claims distinguish over Saito et al., the claims also distinguish over U.S. Patent No. 6,716,386.

Specifically, U.S. Patent No. 6,716,386 does not teach or suggest, among other things, “a even-heating device to heat-treat the preform obtaining a evenly-heated preform; a preform discharger to discharge the preform from the compression molding machine and to carry to the even-heating device; a stretch blow molding machine to form the evenly-heated preform into a container product; and a container product discharger, wherein the extruder, the drop cutter, the compression molding machine, the heater, the stretch blow molding machine are constituted as a continuous system,” as recited in claim 4. Claim 7 depends from claim 4.

Claim 11 depends from claim 1. U.S. Patent No. 6,716,386 does not teach or suggest, among other things, “performing an even-heating treatment of the preform discharged from the compression molding machine while the preform maintains heat conferred during compression molding, thereby obtaining an evenly-heated preform with a homogenized temperature in a thickness direction; and performing stretch blow molding on the evenly-heated preform with a stretch blow molding machine, wherein the compression molding, the even-heating treatment, and the stretch blow molding are continuously performed without cooling the preform formed by the compression molding to a room temperature,” as recited in claim 1.

For at least these reasons, claims 4, 7, and 11 patentably distinguish over U.S. Patent No. 6,716,386.

Claims 4, 7, and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being obvious over claims 1-5 and 9-11 of copending Application No. 10/564445.

Application No. 10/564,445 discloses a method and a device for forcibly inserting a drop of a molding material into a concave of a molding female die in a compression molding machine. Application No. 10/564,445 does not teach or suggest, among other things, “a even-heating device to heat-treat the preform obtaining a evenly-heated preform; a preform discharger to discharge the preform from the compression molding machine and to carry to the even-heating device; a stretch blow molding machine to form the evenly-heated preform into a container product; and a container product discharger, wherein the extruder, the drop cutter, the compression molding machine, the heater, the stretch blow molding machine are constituted as a continuous system,” as recited in claim 4. Claim 7 depends from claim 4.

Claim 11 depends from claim 1. Application No. 10/564,445 does not teach or suggest, among other things, “performing an even-heating treatment of the preform discharged from the compression molding machine while the preform maintains the heat conferred during compression molding, thereby obtaining an evenly-heated preform with a homogenized temperature in a thickness direction; and performing stretch blow molding on the evenly-heated preform with a stretch blow molding machine, wherein the compression molding, the even-heating treatment, and the stretch blow molding are continuously performed without cooling the preform formed by the compression molding to a room temperature,” as recited in claim 1.

For at least these reasons claims 4, 7 and 11 patentably distinguish over Application No. 10/564,445.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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